

WHAT IS CLAIMED IS:

1. A method for delivering a closure element to seal an opening through tissue, the closure element being carried by a carrier assembly slidable on an outer surface of an elongate member, the elongate member comprising a skin overlying at least a portion of the outer surface
5 between the carrier assembly and a distal end of the elongate member and at least partially overlying the carrier assembly, the elongate member being provided with a locator member slidably associated therewith, said locator member having one or more expandable positioning elements on its distal portion, the method comprising:

inserting the distal end of the elongate member into an opening through tissue;
10 advancing the locator member distally from the distal end of the elongate member;
expanding said one or more positioning elements;
withdrawing said locator member until said positioning elements contact tissue;
advancing the carrier assembly towards the distal end of the elongate member, the carrier assembly causing the skin to separate from the outer surface of the elongate member as the
15 carrier assembly is advanced towards the distal end; and

deploying the closure element from the carrier assembly within the opening to substantially seal said opening.
2. The method of claim 1, further comprising removing the elongate member from
20 the opening.

3. The method of claim 1, wherein the skin comprises a weakened region extending towards the distal end of the elongate member, the weakened region tearing as the carrier assembly is advanced towards the distal end of the elongate member.

5 4. The method of claim 1, wherein the skin comprises a flap extending generally axially along the outer surface of the elongate member and overlying an adjacent region of the skin, and wherein the flap is released from the adjacent region as the carrier assembly is advanced towards the distal end of the elongate member, thereby allowing the skin to separate from the outer surface.

10 5. The method of claim 1, wherein the skin expands to a cross-section that is larger than a cross-section of the elongate member as the carrier assembly is advanced towards the distal end.

15 6. The method of claim 1, wherein the skin is bonded to the outer surface of the elongate member by an adhesive, and wherein the adhesive has sufficient adhesive strength such that the skin is peeled away from the outer surface as the carrier assembly is advanced towards the distal end.

7. The method of claim 1, wherein the skin comprises an outer surface that is substantially slippery for facilitating advancement of the elongate member into the opening through tissue.

5 8. The method of claim 7, wherein the opening through tissue extends through one or more layers of fascia, and wherein the skin facilitates advancement of the carrier assembly through the one or more layers of fascia.

9. The method of claim 1, wherein the opening through tissue communicates with a
10 blood vessel, and wherein the deploying step comprises substantially sealing the opening from blood flow therethrough with the closure element.

10. The method of claim 1, further comprising coupling the carrier assembly to a proximal end of the elongate member.

15 11. The method of claim 10, wherein the carrier assembly comprises a plunger, the closure element is carried on the distal end of the plunger, and wherein the coupling step comprises inserting the distal end of the plunger through a hub on the proximal end of the elongate member.

12. The method of claim 1, wherein the skin comprises a plurality of longitudinal slots, the slots opening as the carrier assembly is advanced, thereby expanding the skin.

13. The method of claim 12, wherein the longitudinal slots are staggered relative to one another such that the skin assumes a zigzag mesh configuration as it expands.

14. The method of claim 1, further comprising contracting said positioning elements and withdrawing said locator member.

15. The method of claim 1, wherein the distal end of the elongate member is inserted into the lumen of a blood vessel and wherein the positioning elements of the locator member are expanded within the lumen of a blood vessel.

16. The method of claim 15, wherein the step of withdrawing the locator member causes the positioning elements to come into contact with the wall of the blood vessel.

17. A method for delivering a closure element to seal an opening through tissue, the closure element being carried by a carrier assembly slidable on the outer surface of an elongate member, the elongate member being at least partially located within a sleeve member, the method comprising:

inserting the distal end of the sleeve member into an opening through tissue which opening is in blood flow communication with the lumen of a blood vessel;

advancing the carrier assembly towards the distal end of the elongate member, the advancement of the carrier assembly causing the sleeve member to be disrupted to permit such

5 advancement; and

deploying the closure element from the carrier assembly to substantially seal said opening.

18. The method of claim 17, wherein said blood vessel is the femoral artery.

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19. The method of claim 17, wherein the elongate member is provided with a locator member slidably associated therewith and said locator member is provided with one or more expandable positioning elements on its distal portion, comprising the steps of advancing the locator member distally from the distal end of the elongate member; expanding the said one or
15 more positioning elements; and withdrawing said locator member until said positioning elements contact the wall of the blood vessel; the step of withdrawing the locator member being performed prior to the step of deploying the closure element.

20. A method for delivering a closure element to seal an opening through tissue, the
20 closure element being carried by a carrier assembly slidable on the outer surface of an elongate

member, the elongate member being at least partially located within a sleeve member, the method comprising:

inserting the distal end of the sleeve member into an opening through tissue which opening is in blood flow communication with the lumen of a blood vessel;

5 advancing the carrier assembly towards the distal end of the elongate member, the advancement of the carrier assembly causing the sleeve member to be expanded to permit such advancement; and

 deploying the closure element from the carrier assembly to substantially seal said opening.

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21. The method of claim 20, wherein said blood vessel is the femoral artery.

22. The method of claim 20, wherein the elongate member is provided with a locator member slidably associated therewith and said locator member is provided with one or more
15 expandable positioning elements on its distal portion, comprising the steps of advancing the locator member distally from the distal end of the elongate member; expanding the said one or more positioning elements; and withdrawing said locator member until said positioning elements contact the wall of the blood vessel; the step of withdrawing the locator member being performed
prior to the step of deploying the closure element.

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